

Comparisons of Job Characteristics

Focus Occupation: [Architectural and Engineering Managers \(11-9041\)](#)

Associated Occupation: [Geoscientists, Except Hydrologists and Geographers \(19-2042\)](#)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 67

Focus Occupation: Architectural and Engineering Managers (11-9041)

Associated Occupation: Geoscientists, Except Hydrologists and Geographers (19-2042)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Engineering and Technology	5.7	17.8	23.2	>>	Current knowledge level is likely more than sufficient
Geography	3.9	17.4	5.7	<<	Extensive education and/or training may be required
Mathematics	9.2	16.0	17.4	0	Current knowledge level may be sufficient
Computers and Electronics	8.4	15.0	16.9	>	Current knowledge level is likely sufficient
Physics	4.3	14.4	13.0	<	Expanded education and/or training may be required
Chemistry	4.8	10.3	6.6	<<	Extensive education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 77

Focus Occupation: Architectural and Engineering Managers (11-9041)

Associated Occupation: Geoscientists, Except Hydrologists and Geographers (19-2042)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Reading Comprehension	10.7	16.0	14.8	0	Current skill level may be sufficient
Science	4.5	15.1	8.7	<<	Extensive development of skills in this area may be required
Active Listening	11.0	13.6	13.6	0	Current skill level may be sufficient
Complex Problem Solving	9.1	11.9	13.0	0	Current skill level may be sufficient
Mathematics	6.2	9.4	11.7	>	Skill level is likely sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 97				
Focus Occupation: Architectural and Engineering Managers (11-9041)						
Associated Occupation: Geoscientists, Except Hydrologists and Geographers (19-2042)						
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation		
Written Comprehension	11.0	16.0	15.2	0	Current ability level may be sufficient	
Written Expression	9.8	14.2	13.8	0	Current ability level may be sufficient	
Inductive Reasoning	10.2	13.2	12.5	0	Current ability level may be sufficient	
Deductive Reasoning	10.6	13.0	13.9	0	Current ability level may be sufficient	
Near Vision	11.1	12.8	12.5	0	Current ability level may be sufficient	
Category Flexibility	9.0	12.3	11.4	0	Current ability level may be sufficient	
Mathematical Reasoning	6.3	10.3	13.3	>>	Current ability level is likely more than sufficient	
Flexibility of Closure	7.8	10.1	7.9	<	Some improvement in abilities may be required	
Number Facility	6.3	9.1	11.2	>	Current ability level is likely sufficient	

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 82
Focus Occupation: Architectural and Engineering Managers (11-9041) Associated Occupation: Geoscientists, Except Hydrologists and Geographers (19-2042)		
Work Activities	Exclusivity of Activity	
Adhere to safety procedures	12	
Advise clients or customers	19	
Communicate technical information	4	
Confer with engineering, technical or manufacturing personnel	25	
Develop policies, procedures, methods, or standards	21	
Direct and coordinate activities of workers or staff	3	
Direct geological surveys	99	
Evaluate engineering data	60	
Explore for oil or gas	92	
Make decisions	24	
Make presentations	13	
Perform statistical analysis in physical science or geological research	71	
Prepare reports	8	
Prepare technical reports or related documentation	22	

Read technical drawings	7
Resolve engineering or science problems	46
Understand engineering data or reports	48
Use project management techniques	47
Use scientific research methodology	21
Write business project or bid proposals	48

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 70

Focus Occupation: Architectural and Engineering Managers (11-9041)

Associated Occupation: Geoscientists, Except Hydrologists and Geographers (19-2042)

Tools and Technologies	Exclusivity
Business function specific software	1
Chromatographic measuring instruments and accessories	16
Computer data input devices	2
Computers	1
Content authoring and editing software	1
Content management software	6
Data management and query software	1
Electrochemical measuring instruments and accessories	9
Indicating and recording instruments	2
Industry specific software	1
Information exchange software	1
Laboratory decanting and distilling and evaporating and extracting equipment and supplies	19
Laboratory enclosures and accessories	17
Laboratory heating and drying equipment	13
Network applications software	1
Spectroscopic equipment	10
Temperature and heat measuring instruments	6
Viewing and observing instruments and accessories	4

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.